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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,898	07/22/2003	Peter Harold Werner	110003.98148.02AB071	2563

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EXAMINER

LANGDON, EVAN H

ART UNIT	PAPER NUMBER
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3654

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/626,898	WERNER, PETER HAROLD	
	Examiner	Art Unit	
	Evan H Langdon	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/22/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Morton et al. (US 4,750,430).

In regards to claims 1 and 30, Morton discloses an apparatus for use with a transfer system for transferring a trolley 16 between first 12 and second 14 stations, the system including an inhaul winch 42, an outhaul winch 46, a cable 40 and a trolley, the inhaul 42 winch mounted to the first station 12, the outhaul winch 46 mounted to the first 12 the cable extending between the first and second stations and between the inhaul and outhaul winches and the trolley 14 mounted to the cable, the assembly for controlling trolley speed during transfer between the first and second stations and comprising:

a speed selector 74 (operator controls Fig. 5A) for setting a command speed value 258 (col. 13, lines 33-41);

a speed sensor 160, 164 assembly sensing the speed of the cable and providing a speed feedback value 168, 176; and

a speed regulator 210 regulating the speeds of the inhaul and the outhaul winches as a function of the command speed value and the speed feedback value (Fig. 5A).

In regards to claim 16, Morton discloses an apparatus for use with a transfer system for transferring a trolley 16 between first 12 and second 14 stations, the system including an inhaul winch 42, an outhaul winch 46, a cable 40, a trolley 16 and a pulley 44, the inhaul winch and outhaul winch mounted to the first station 12, the pulley 44 mounted to the second station 14, the cable 44 extending from the inhaul winch 42 to the pulley 44 and back to the outhaul 46 winch and the trolley 44 mounted to the cable, the assembly for controlling trolley speed during transfer between the first and second stations and comprising:

a speed selector 74 (operator controls Fig. 5A) for setting a command speed value 254, the command speed value positive when the winches are operating to move the trolley toward the second station and negative when the winches are operating to move the trolley toward the first station (col. 44, line 60 – col. 50, line 9);

an inhaul speed sensor 160 for sensing cable speed proximate the inhaul winch and generating an inhaul speed feedback value 168;

an outhaul speed sensor 164 for sensing cable speed proximate the outhaul winch and generating an outhaul speed feedback value 176;

a speed feedback determiner 174 that selects the inhaul speed feedback value as a speed feedback value when the command speed value is positive and selects the outhaul speed feedback value as the speed feedback value when the command speed value is negative (col. 6, lines 20-24, col. 30, lines 33-53, and col. 11 and 12); and

a speed regulator 210 that regulates the torques of the inhaul and the outhaul winches as a function of the command speed value and the speed feedback value.

In regards to claims 2, 5, 6, 31 and 32, Morton discloses the speed sensor assembly includes an inhaul speed sensor 160, an outhaul speed sensor 164 and a feedback determiner 174, the inhaul speed sensor sensing the speed of the cable proximate the inhaul winch 62 and generating an inhaul speed feedback signal 168 and the outhaul speed sensor 164 sensing the speed of the cable proximate the outhaul winch 64 and generating an outhaul speed feedback signal 176, the feedback determiner selecting one or the other of the inhaul and outhaul speed feedback signals as the speed feedback value (col. 30, lines 33-53).

In regards to claims 3, 7 and 33, Morton discloses when the winches are moving the trolley 16 from the first station 12 toward the second station 14, the feedback determiner selects the inhaul speed feedback signal 168 as the speed feedback value and, when the winches are moving the trolley from the second station toward the first station, the feedback determiner selects the outhaul speed feedback signal 176 as the speed feedback value (col. 6, lines 20-24, col. 30, lines 33-53, and col. 11 and 12).

In regards to claim 4 Morton discloses a pulley 44 mounted to the second 14 station and wherein the outhaul winch is mounted to the first station 12 and the cable passes from the inhaul winch around the pulley and back to the outhaul winch.

In regards to claims 8, 17 and 34, Morton disclose the speed regulator includes a summer 210 that mathematically combines the command speed value and the speed feedback value to generate a speed error value and then uses the speed error value to adjust inhaul and outhaul winch speeds (col. 11, 14 and 15).

In regards to claims 9, 18 and 35, Morton discloses when the speed error value is positive, the speed regulator uses the speed error value as an intermediate outhaul speed value to

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control the outhaul winch and a zero intermediate inhaul speed value to control the inhaul winch and, when the speed error value is negative, the speed regulator uses the speed error value as an intermediate inhaul speed value to control the inhaul winch and a zero intermediate outhaul speed value to control the outhaul winch (col. 44, line 60 – col. 50, line 9).

In regards to claims 10, 19 and 36, Morton discloses a tension selector 250 for setting a command tension value, the speed regulator 210 mathematically combining the command tension value 256 and the intermediate inhaul speed value 204 to generate an inhaul torque value to control the inhaul winch speed 252 and mathematically combining the command tension value and the intermediate outhaul speed value 214 to generate an outhaul torque value to control the outhaul winch speed 254.

In regards to claims 11, 20, 21 and 37, Morton discloses inhaul 50 and outhaul 56 tension sensors for sensing cable tensions proximate the inhaul and outhaul winches and generating inhaul 162 and outhaul 166 tension feedback values, respectively, when the error signal is negative, the speed regulator 210 mathematically combining to generate the outhaul torque value by (col. 50, line 10 – col. 52, line 54):

mathematically combining the command tension value 250 and the outhaul tension feedback value 166, 254 to generate an intermediate outhaul tension value (at 250);

mathematically combining the command tension value 250 and the intermediate outhaul tension value (at 250) to generate a final outhaul tension value 252; and

mathematically combining the intermediate outhaul speed value 214 and the final outhaul tension value 254 to generate the outhaul torque value; and,

when the error signal is positive, the speed regulator mathematically combining the values for the inhaul values in the same way as the outhaul.

In regards to claims 12, 22 and 38, see col. 11, lines 14-67.

In regards to claims 13 and 39, Morton discloses cable tension selector 250 for selecting a cable tension command value, the speed regulator 210 regulating the speeds of the inhaul and the outhaul winches as a function of the command speed value, the speed feedback value 168, 176 and the cable tension command value.

In regards to claims 14 and 40, Morton discloses an inhaul cable tension sensor 50 and an outhaul cable tension sensor 56 for sensing the tension of the cable proximate the inhaul and outhaul winches and generating inhaul 162 and outhaul 166 tension feedback values, respectively, the speed regulator 250 regulating the speeds of the inhaul and the outhaul winches as a function of the command speed value, the speed feedback value 168, 176, the cable tension command value 250 and the inhaul and outhaul tension feedback values.

In regards to claims 15 and 41, Morton discloses the speed sensor assembly includes first 160 and second 164 cable speed sensors for determining the speeds of two different sections of the cable and wherein the speed sensor assembly further includes a speed feedback determiner 174 for selecting a signal from one of the first and second cable speed sensors as the speed feedback value.

With respect to claims 23-29, the method described in these claims would inherently result from the use of control system for transfer having a inhaul and outhaul winches of Morton et al as advanced above.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evan H Langdon whose telephone number is (703)-306-5768. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (703)-308-2688. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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